II. Listing of the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-59. (Canceled)

60. (Withdrawn) A method of manufacturing a disc replacement device, comprising:

providing a shape memory alloy body; and

removing material from the body to form a plurality through-holes through the body, thereby defining, in the body, upper and lower shells and a plurality of integral pillars extending between the upper and lower shells.

61. (Withdrawn) The method of claim 60 wherein providing a shape memory alloy body includes providing a shape memory body having at least one fin integral to the body and extending from one of the exterior surfaces.

62. (Withdrawn) The method of claim 60 wherein providing the shape memory alloy body includes:

providing a shape memory alloy ingot; and

removing material from the ingot to form the exterior surfaces.

63. (Withdrawn) The method of claim 62 wherein removing material to form the exterior surfaces includes removing material to form at least one fin extending from one of the exterior surfaces.

64. (Withdrawn) The method of claim 60 wherein the plurality of through-holes each have substantially oval cross-sectional profile.

65. (Withdrawn) The method of claim 60 wherein removing material to form the plurality of through-holes comprises boring into the body.

66. (Withdrawn) A method of installing a disc replacement device, comprising:

providing a disc replacement device having upper and lower shells and a plurality of compressible pillars extending between the upper and lower shells, the plurality of pillars each comprising a shape memory alloy, at least one of the plurality of pillars interiorly offset from perimeters of the upper and lower shells; and

positioning the disc replacement device between adjacent vertebral bodies.

67. (Withdrawn) The method of claim 66 further comprising preparing a disc replacement region between the adjacent vertebral bodies prior to positioning the disc replacement device.

68. (Withdrawn) The method of claim 66 further comprising compacting the disc replacement device prior to positioning the disc replacement device between the adjacent vertebral bodies, wherein compacting the disc replacement device include compressing the pillars.

69. (Withdrawn) The method of claim 68 wherein compacting the disc replacement device comprises compressing the upper and lower shells towards each other, thereby compressing at least one of the plurality of pillars.

70. (Withdrawn) The method of claim 68 further comprising maintaining the disc replacement device below a predetermined temperature between compacting and positioning the disc replacement device.

71. (Withdrawn) The method of claim 68 wherein the disc replacement device includes at least one external fin extending from one of the upper and lower shells and compacting the disc replacement device comprises deflecting the at least one external fin towards one of the upper and lower shells.

72. (Withdrawn) The method of claim 68 further comprising installing the compacted disc replacement device in an insertion tool employed to position the disc replacement device between the adjacent vertebral bodies.

73. (Withdrawn) The method of claim 69 further comprising expanding the disc replacement device after positioning between the adjacent vertebral bodies.

74. (Withdrawn) The method of claim 73 wherein expanding the disc replacement device comprises heating the disc replacement device to at least a predetermined temperature.

75. (Withdrawn) The method of claim 74 wherein the predetermined temperature is within a temperature range of a live human body.

76. (New) An artificial implant for implantation between an upper vertebra and a lower vertebra, comprising:

an upper shell for engaging with the upper vertebra, the upper shell having at least one elongated projection extending along a majority of a length of an upper surface, the at least one elongated projection comprising a first portion comprised of a first shape-memory alloy and a second portion comprised of a second material, the second material being more rigid than the first shape-memory alloy;

a lower shell for engaging with the lower vertebra; and

a plurality of resiliently deformable pillars extending between the upper and lower shells, the plurality of pillars comprising a second shape memory alloy.

77. (New) The implant of claim 76 wherein the lower shell further comprises at least one elongated projection extending a majority of a length of a lower surface, the at least one elongated projection comprising a first portion comprised of a third shape-memory alloy and a second portion comprised of a fourth material, the fourth material being more rigid than the third shape-memory alloy.

78. (New) The implant of claim 76, wherein the first portion of the at least one elongated projection is spaced from the upper surface.

79. (New) The implant of claim 78, wherein the second portion of the at least one elongated projection extends between the upper surface and the first portion of the at least one elongated projection.

80. (New) The implant of claim 79, wherein the second portion extends substantially perpendicular to the upper surface and the first portion extends obliquely relative to the upper surface.

81. (New) The implant of claim 80, wherein the first portion extends at an acute angle relative to the upper surface.

82. (New) The implant of claim 76, wherein the plurality of pillars are each superelastic within a temperature range of a live human body.

83. (New) The implant of claim 82, wherein the at least one elongated projection is superelastic within a temperature range of a live human body.

84. (New) The implant of claim 76, wherein the first shape-memory alloy and the second shape-memory alloy are substantially identical.

85. (New) The implant of claim 76, wherein at least one of the first and second shape-memory alloys comprise Nitinol.

86. (New) The implant of claim 76, wherein at least one of the first and second shape-memory alloys comprise a copper-based alloy.

87. (New) The implant of claim 76, further comprising at least one pillar extending between the upper and lower shells formed of a third shape-memory alloy, the third shape-memory alloy being different than the second shape-memory alloy.

88. (New) The implant of claim 76, wherein each of the plurality of pillars comprise a substantially identical shape.

89. (New) The implant of claim 76, wherein at least a first one of the plurality of pillars comprises a first shape and at least a second one of the plurality of pillars comprises a second shape, wherein the first shape differs from the second shape.

90. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises a tetrahedron shape.

91. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises an hour-glass shape.

92. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises a rectangular prism shape.

93. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises a pyramid shape.

94. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises a cone shape.

95. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises an irregular shape.

96. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises a substantially polygonal cross-sectional shape.

97. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises a fillet adjacent one of the upper and lower shells.

98. (New) The implant of claim 76, wherein at least one of the plurality of pillars comprises an upper fillet adjacent the upper shell and a lower fillet adjacent the lower shell.

99. (New) The implant of claim 76 wherein at least one of the plurality of pillars comprises a first cross-sectional area proximate at least one of the upper and lower shells and a second cross-sectional area distal from the upper and lower shells, wherein the first cross-sectional area is substantially greater than the second cross-sectional area.

100. (New) The implant of claim 76 wherein the plurality of pillars comprises eight pillars proximate the perimeters of the upper and lower shells and one pillar interiorly offset from the perimeters of the upper and lower shells.

101. (New) The implant of claim 76 wherein at least one of the plurality of pillars has a height-to-width ratio of less than about 5:1, wherein the height is measured between opposing, interior surfaces of the upper and lower shells and the width is a minimum width of the pillar.

102. (New) The implant of claim 76 wherein at least one of the plurality of pillars has a height-to-width ratio ranging between about 1:1 and about 3:1, wherein the height is measured between opposing, interior surfaces of the upper and lower shells and the width is a minimum width of the pillar.

103. (New) An artificial implant for implantation between an upper vertebra and a lower vertebra, comprising:

an upper shell for engaging the upper vertebra, the upper shell having an upper pair of elongated projections extending substantially parallel to one another along a length of an upper surface, the upper elongated projections comprising a first shape-memory alloy, a majority of the upper shell comprising a second material more rigid than the first shape-memory alloy;

a lower shell for engaging the lower vertebra, the lower shell having a lower pair of elongated projections extending substantially parallel to one another along a length of a lower surface, the lower elongated projections comprising a second shape-memory alloy, a majority of the lower shell comprising a fourth material more rigid than the second shape-memory alloy; and

a plurality of resiliently deformable pillars extending between the upper and lower shells, the plurality of pillars comprising a third shape-memory alloy.

104. (New) The implant of claim 103, wherein the upper elongated projections comprise an upper anchor portion adjacent the upper surface, the upper anchor portions comprising a fifth material that is more rigid than the first shape-memory alloy.

105. (New) The implant of claim 104, wherein the lower elongated projections comprise a lower anchor portion adjacent the lower surface, the lower anchor portions comprising a sixth material that is more rigid than the second shape-memory alloy.

106. (New) The implant of claim 105, wherein the first shape-memory alloy and the second shape-memory alloy are substantially identical.

107. (New) The implant of claim 106, wherein the fifth material and the sixth material are substantially identical.

108. (New) The implant of claim 105, wherein the upper anchor portion extends substantially perpendicular to the upper surface.

109. (New) The implant of claim 108, wherein the upper elongated projections comprise an upper tip portion extending from the upper anchor portion at an oblique angle with respect to the upper surface, the upper tip portion at least partially comprising the first shape-memory alloy.

110. (New) The implant of claim 109, wherein the upper tip portion extends at an acute angle with respect to the upper surface.

111. (New) The implant of claim 109, wherein the lower anchor portion extends substantially perpendicular to the lower surface.

112. (New) The implant of claim 110, wherein the lower elongated projections comprise an lower tip portion extending from the lower anchor portion at an oblique angle with respect to the lower surface, the lower tip portion at least partially comprising the second shape-memory alloy.

113. (New) The implant of claim 112, wherein the lower tip portion extends at an acute angle with respect to the upper surface.

114. (New) The implant of claim 112 wherein the upper tip portion is deformable towards the upper surface in response to a load.

115. (New) The implant of claim 114 wherein the upper tip portion is configured to return towards a pre-deformed orientation in response to exposure to a temperature that is within a temperature range of a live human body.

116. (New) The implant of claim 115 wherein the lower tip portion is deformable towards the lower surface in response to a load.

117. (New) The implant of claim 116 wherein the lower tip portion is configured to return towards a pre-deformed orientation in response to exposure to a temperature that is within a temperature range of a live human body

118. (New) The implant of claim 103 wherein at least one of the first, second, and third shape-memory alloys comprises Nitinol.

119. (New) The implant of claim 103 wherein each of the first, second, and third shape-memory alloys comprises Nitinol.

120. (New) The implant of claim 103 wherein at least one of the first, second, and third shape-memory alloys comprises a copper-based alloy.

121. (New) The implant of claim 120 wherein each of the first, second, and third shape-memory alloys comprises a copper-based alloy.

122. (New) An artificial implant for implantation between an upper vertebra and a lower vertebra, comprising:

an upper shell for engaging the upper vertebra, the upper shell having an upper pair of elongated projections extending substantially parallel to one another along a majority of a length of an upper surface, the upper elongated projections comprising an anchor portion extending substantially perpendicular from the upper surface and a tip portion extending from the anchor portion at an oblique angle relative to the upper surface, the anchor portion comprising a first material and the tip portion comprising a second material, the first material being harder than the second material, the second material being a shape-memory alloy;

a lower shell for engaging the lower vertebra, the lower shell having a lower pair of elongated projections extending substantially parallel to one another along a majority of a length of a lower surface, the lower elongated projections comprising an anchor portion extending substantially perpendicular from the lower surface and a tip portion extending from the anchor portion at an oblique angle relative to the lower surface, the anchor portion comprising a third material and the tip portion comprising a fourth material, the third material being harder than the fourth material, the fourth material being a shape-memory alloy; and

nine resiliently deformable pillars extending between the upper and lower shells, eight of the pillars positioned adjacent a perimeter of the upper and lower shells and one of the pillars positioned substantially centrally within the perimeter of the upper and lower shells, each of the pillars having a fillet portion adjacent the upper and lower shells and a central portion of reduced thickness relative to the fillet portions, each of the pillars comprising a shape-memory alloy.